

PERSONAL INFORMATION

Ene Alexandru Cătălin

 IFIN-HH alexandru.catalin.ene@cern.ch Skype

Sex M | Date of birth 11/06/1991 | Nationality Romanian

POSITION WITHIN THE PROJECT

Research assistant (A.C.S.)

WORK EXPERIENCE

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- June 2017 – present **Associated member of CERN (LHCb Collaboration)**
The European Organization for Nuclear Research, Route de Meyrin 385, Meyrin, Switzerland
■ LHCb data analysis
[Business or sector](#) Research
- Oct. 2015 – June 2017 **External member of CERN (LHCb Collaboration)**
The European Organization for Nuclear Research, Route de Meyrin 385, Meyrin, Switzerland
■ LHCb data analysis
[Business or sector](#) Research
- Nov. 2016 – present **Research assistant (A.C.S.)**
Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering (IFIN-HH), Măgurele, Romania, Reactorului St., no. 30, www.nipne.ro
■ LHCb data analysis
[Business or sector](#) Research
- Apr. 2016 – Nov. 2016 **Physicist**
Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering (IFIN-HH), Măgurele, Romania, Reactorului St., no. 30, www.nipne.ro
■ LHCb data analysis
[Business or sector](#) Research
- Oct. 2015 – Apr. 2016 **Physicist (Debutant)**
Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering (IFIN-HH), Măgurele, Romania, Reactorului St., no. 30, www.nipne.ro
■ LHCb data analysis
[Business or sector](#) Research

EDUCATION
AND
TRAINING

- Oct. 2016 – present **PhD Student**
 Doctoral School of Physics, Faculty of Physics, University of Bucharest, Bucharest, Romania

 - Graduate studies, Physics of the Atom, Nucleus, Elementary Particles, Astrophysics and Applications

- Oct. 2014 – June 2016 **Master's degree**
 Faculty of Physics, University of Bucharest, Bucharest, Romania

 - Graduate studies, Physics of the Atom, Nucleus, Elementary Particles, Astrophysics and Applications

- Oct. 2010 – June 2014 **Engineering degree**
 Faculty of Physics, University of Bucharest, Bucharest, Romania

 - Undergraduate studies, Applied Engineering Sciences, Technological Physics

- Sept. 2006 – June 2010 **High School Diploma**
 "Colegiul Național Ienachiță Văcărescu", Târgoviște, Romania

PERSONAL
SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	B2	B2	B1	B1	B2
Italian	A2	B1	A2	A2	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient	Proficient	Proficient	Proficient	Proficient

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

- Use of specialized software (Origin™, Mathematica™)
- Programming skills using GNU Fortran and C++
- Use of the ROOT package
- Monte Carlo simulation skills

ADDITIONAL INFORMATION

- Publications**
- L. E. Giubega, A. Jipa, A. C. Ene – Study of Λ resonances in the $\Lambda_b \rightarrow \Lambda^{*} (\rightarrow p^{+} K^{-})\gamma$ decay using helicity formalism – Romanian Journal of Physics 62, 401 (2017).
 A. C. Ene, A. Jipa, L. E. Giubega – Study of Monte Carlo event generators for proton-proton collisions at LHC energies in the forward region – Under review – European Physical Journal C.
- Conferences**
- A. C. Ene, I. Lazanu – Experiments for the study of neutrino oscillations – Bucharest University Faculty of Physics 2014 Meeting, June 2014.
 I. Lazanu, A. Jipa, A. C. Ene et al. – On a few problems in the building of the detectors with large sensitive volumes for neutrino Physics underground experiments – Bucharest University Faculty of Physics 2015 Meeting, June 2015.
 A. C. Ene, A. Jipa – Particle production in pp collisions at LHC energies – Bucharest University Faculty of Physics 2016 Meeting, June 2016.
 A. C. Ene, A. Jipa – Particle production in pp collisions at LHC energies – Physics Faculties Pentagon, Cluj-Napoca, July 2016 (First prize at Master-PhD level).
 A. C. Ene – Comparison of cosmic ray collisions generators and PYTHIA – Workshop on sensors and High Energy Physics (21-22 October 2016) – Ștefan cel Mare University of Suceava, Suceava, October 2016.
 A. C. Ene – Comparison of cosmic ray models with PYTHIA – Young Researchers from IFIN-HH meeting 2016, Bucharest-Magurele, December 2016.
 A. C. Ene, A. Jipa – Comparison of cosmic ray collisions generators and PYTHIA predictions for proton-proton interactions at LHC energies – Bucharest University Faculty of Physics 2017 Meeting, June 2017.
 A. Jipa, C. Beșliu, A. C. Ene et al. – Possible new insights on the dynamics or relativistic nuclear collisions from CBM Experiment from FAIR-GSI – Bucharest University Faculty of Physics 2017 Meeting, June 2017.
 A. C. Ene – Study of strange and beauty particles production in pp interactions at $\sqrt{s} = 13$ TeV using PYTHIA – The 17th International Balkan Workshop on Applied Physics, Constanța, July 2017.
 A. C. Ene – Monte Carlo event generation for pp collisions, phenomenological models and tuning – WE-Heraeus Physics School: QCD – Old Challenges and New Opportunities, Bad Honnef, September 2017.
 A. C. Ene – Monte Carlo event generation for pp collisions, phenomenological models and tuning – ISAB: Young Scientists Forum, Bucharest-Magurele, October 2017.
 A. C. Ene – Study of Monte Carlo event generators taking as reference LHCb data – Young Researchers Scientific Meeting @ IFIN-HH, Bucharest-Magurele, December 2017.
 A. C. Ene – Proton-proton collision generators. Predictions at $\sqrt{s} = 7$ TeV and the forward physics at LHC – TIM 2018 Physics Conference, Timișoara, May 2018.
 A. C. Ene, A. Jipa – Global event observables in forward physics at LHCb. Predictions of Monte Carlo event generators for proton-proton collisions at $\sqrt{s} = 7$ TeV – Bucharest University Faculty of Physics 2018 Meeting, June 2018.
 C. Beșliu, A. Jipa, A. C. Ene et al. – On the evolution of the relativistic and ultrarelativistic nuclear collisions studies. Old and new results and their continuity – Bucharest University Faculty of Physics 2018 Meeting, June 2018.

A. C. Ene – Monte Carlo event generator predictions for forward physics in $\sqrt{s} = 7$ TeV proton-proton collisions – 7th International Conference on New Frontiers in Physics” (ICNFP 2018), 04-12 July 2018, Kolymbari, Greece.

A. Jipa, O. Ristea, A. C. Ene et al. – Simulation results on bulk properties and hydrodynamic behaviours of the high excited and dense nuclear matter in relativistic nuclear collisions at FAIR energies – 7th International Conference on New Frontiers in Physics” (ICNFP 2018), 04-12 July 2018, Kolymbari, Greece.

Schools and workshops

Frontiers in particle physics: Flavor Physics, 7-11 November 2016, Niels Bohr Institute, Copenhagen, Denmark.

Geant4 school at IFIN-HH, 14-18 November 2016, IFIN-HH, Bucharest-Magurele, Romania.

84th LHCb Week 12 - 16 June 2017, CERN, Meyrin, Switzerland.

Workshop on the Standard Model and Beyond - 17th Hellenic School and Workshops on Elementary Particle Physics and Gravity, 2-10 September 2017, Corfu, Greece.

Workshop on Particle Physics and Cosmology Tools - 17th Hellenic School and Workshops on Elementary Particle Physics and Gravity, 9-14 September 2017, Corfu, Greece.

WE-Heraeus Physics School – QCD - Old Challenges and New Opportunities, 24-30 September 2017, Bad Honnef, Germany.

LHCb Implications Workshop, 8-10 November 2017, CERN, Meyrin, Switzerland.

Courses

"Introduction to Nuclear and Particle Physics" at Centrul de Pregătire și Specializare în Domeniul Nuclear (CPSDN), IFIN-HH, 18.09.-13.11.2018.

Honours and awards

First prize at Master's-PhD level at the Physics Faculties Pentagon, Cluj-Napoca, July 2016, with the work: A. C. Ene, A. Jipa – Particle production in pp collisions at LHC energies.

Academic

2016 – Present: Laboratory classes held for the “Phenomenology of Nuclear and Elementary Particle Physics at high energies” and “Experimental Relativistic Nuclear Physics” courses of professor A. Jipa for the Physics of the Atom, Nucleus, Elementary Particles, Astrophysics and Applications Master's program of the Faculty of Physics, University of Bucharest.

Outreach

2016 – Present: LHCb Masterclass at Universitatea “Ștefan cel Mare” Suceava.

Other

Financial support granted for:

Workshop on the Standard Model and Beyond - 17th Hellenic School and Workshops on Elementary Particle Physics and Gravity, 2-10 September 2017, Corfu, Greece.

WE-Heraeus Physics School – QCD - Old Challenges and New Opportunities, 24-30 September 2017, Bad Honnef, Germany.